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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BELLO, AGUSTIN

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,331

Applicant(s)

GENTNER ET AL.

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/20/02</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Applicant's election with traverse of Species I in the reply filed on 8/19/04 is acknowledged. The traversal is on the ground(s) that the claimed invention does not present a burden for examination. Upon further consideration, the applicant's arguments are found persuasive and the requirement to elect a single species vacated. Therefore, for the purpose of this office action, claims 1-16 have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimojoh (U.S. Patent No. 6,344,914).

Regarding claim 1, Shimojoh teaches providing at least two systems (e.g. upper path and lower path in Figure 12) which operate at different speeds to influence tilting of a spectrum of data signals in the optical data transmission path; measuring (reference numeral 16 in Figure 12) a change in overall power in the optical data transmission path via at least one quicker system of the at least two systems; and compensating the tilting by changing a power of at least one injected filling light source (reference numeral 12 in Figure 12) via the at least one quicker system.

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Regarding claims 2 and 10, Shimojoh teaches incorporating a time delay (reference numerals 10, 20 in Figure 12) in the signal in the optical data transmission path between measurement of the overall power and injection of the at least one filling light source.

Regarding claim 3, Shimojoh teaches providing a controllable filter (reference numeral 20 in Figure 12), wherein the influencing of the tilting of the spectrum is additionally performed by the controllable filter.

Regarding claim 4, Shimojoh teaches a power-controlled EDFA (reference numeral 10 in Figure 12), wherein the influencing of the tilting of the spectrum is at least additionally performed by the power-controlled EDFA.

Regarding claim 5, Shimojoh teaches that the at least one quicker system (e.g. lower branch in Figure 12) performs the step of compensating the tilting quickly, and a slower system (e.g. upper branch of Figure 12) of the at least two systems then returns the compensating of the tilting slowly in a direction of an original state.

Regarding claim 6, Shimojoh teaches that the at least one injected full light source is injected at a start of the optical data transmission path (reference numeral 12, left side in Figure 12).

Regarding claim 7, Shimojoh teaches that the at least one injected full light source is injected at an end of the optical data transmission path and counter to a direction of transmission (reference numeral 12, right side in Figure 12).

Regarding claim 8, Shimojoh teaches at least one multiplexer (reference numeral 1002 in Figure 1), arranged at a beginning of the optical data transmission path, for combining the data transmission channels, a demultiplexer (reference numeral 1006 in Figure 1), arranged at an end

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of the optical data transmission path, for separating the data transmission channels; and at least one path section (reference numeral 1004 in Figure 1) arranged between the at least one multiplexer and the demultiplexer for determining and compensating spectral tilting of transmitted data signals, the at least one path section including a part (reference numeral 1014 in Figure 1, reference numeral 16 in Figure 12) for measuring an overall intensity of the transmitted data signals, at least one controlled full light source (reference numeral 12 in Figure 12) for injecting light power into the at least one path section, and a part (reference numeral 16 in Figure 12) for controlling power of the full light source to compensate power fluctuations of the overall intensity of the transmitted data signals.

Regarding claim 9, Shimojoh teaches that both the part (reference numeral 16 in Figure 12) for measuring the overall intensity of the transmitted data signals and the at least one controlled full light source (reference numeral 12, left side in Figure 12) are arranged at a beginning of the at least one path section.

Regarding claim 11, Shimojoh teaches that the delay element is selected from the group consisting of a dispersion-compensating fiber, a fiber with low dispersion, and a fiber doped with a rare earth element (reference numeral 10 in Figure 12).

Regarding claim 12, Shimojoh teaches that all of the parts of the at least one path section are provided as a control element which can be influenced quickly (e.g. via controller 16 in Figure 12).

Regarding claim 13, Shimojoh teaches that the frequency of the at least one controlled full light source lies within a transmitted wavelength band of the transmitted data signals

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(inherent in EDFA amplification), and the at least one controlled full light source has a signal frequency (inherent in the optical signal).

Regarding claim 14, Shimojoh teaches that the at least one path section includes frequency-dependent filters (reference numeral 20 in Figure 12) which can be controlled in the at least one path section for compensating the tilting.

Regarding claim 15, Shimojoh teaches that the at least one path section includes power-controlled EDFA (reference numeral 10 in Figure 12) for compensating the tilting.

Regarding claim 16, Shimojoh teaches that the at least one path section includes at least one element (reference numeral 10, 20 in Figure 12), which is one of a filter and an amplifier, with a respective frequency-dependent transmission characteristic and a gain characteristic, as well as downstream overall intensity meters (reference numeral 14, 16, 18 in Figure 12), including an evaluation unit (reference numeral 16 in Figure 12) for determining the tilting.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

Agustin Bello
Examiner
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A handwritten signature in black ink, appearing to read 'A. Bello', with a stylized flourish at the end.

**AGUSTIN BELLO
PATENT EXAMINER**